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MANAGING THE MERGER: STRATEGIC I/S PLANNING FOR THE NEW BAXTER

Thomas J. Main
James E. Short

September 1988

CISR WP No. 178
Sloan WP No. 2073-88

Center for Information Systems Research

Massachusetts Institute of Technology
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Managing the Merger:
Strategic I/S Planning for the New Baxter

Thomas J. Main and James E. Short

Introduction

Baxter Healthcare is no stranger to the corporate "merger mania" of the 1980s. Unique in the 1985 merger of Baxter Travenol Labs with American Hospital Supply, however, was not the merger story itself but the business vision behind it. The new Baxter blended American's customer-oriented strengths in sales, marketing, I/S and distribution with Baxter Travenol's emphasis on technology development and manufacturing. This "One Baxter" matching of product line, manufacturing and distribution strengths provides the healthcare marketplace with the integrated product and service portfolio necessary for hospitals to effectively manage their businesses into the 1990s. A key example of "One Baxter" in action was expanding the industry-known ASAP automated order entry system to provide hospitals access to the complete product portfolio of the newly merged corporation.

Partnership between business and systems management was necessary but not sufficient to make "One Baxter" happen. It required effective synergies between business and systems infrastructure planning, and a confident, committed and able management team to drive the program through the corporation. I/S's challenge, and opportunity, was to ensure the systems organization effectively supported this new, highly integrated, "One Baxter" business vision.

To accomplish this, Baxter's CIO initiated a major systems and I/S organizational study. This was not the typical "destined for the executive bookshelf" report. The study's major objective was to align I/S capability with the operating objectives and strategic growth of the new company, effecting, if necessary, a major restructuring of the I/S function. Difficult systems support

questions had to be answered in the midst of a changing business environment. When was it appropriate, for example, to share functional I/S resources across divisional lines, providing both economies of scale and an integrated, business process view? Should each product line have its own customer service department, or should they share that resource across other divisions? How should "One Baxter" corporate marketing programs be supported across divisional lines? Finally, to further complicate the study effort, senior I/S management had to contend with a consulting firm's post merger recommendation to radically decentralize corporate I/S. On the table was a "corporate minimalist" role reducing corporate I/S staffing levels by over 80%.

This article summarizes Baxter's seven-month study, detailing the three critical phases of the effort (see Figure 1):

- Context: Contrasting Baxter's Pre-and Post-Merger Business Environment

- The Planning Process: Defining The Study's Key Objectives and Planning Methodology

- Executing The Plan: Completing the Study and Presenting Recommendations

Before moving to the study's business context section, however, we provide a brief overview of key results.

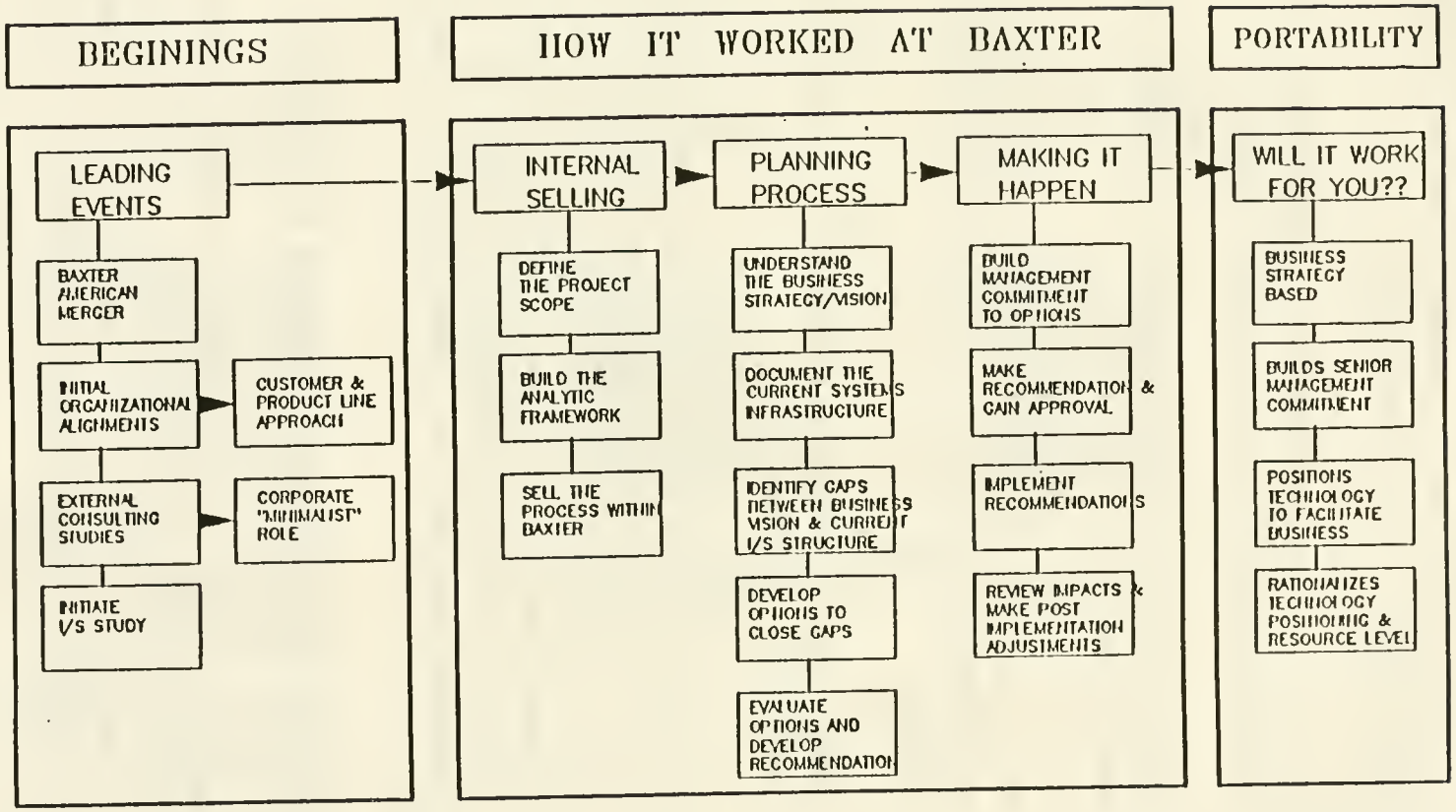
Overview of Key Results

The study's impact was best summarized by one of Baxter's group-level vice-presidents: "The project and findings were done extremely well...For the first time I understand the mission of the systems

Figure 1

BAXTER I/S STRATEGIC PLANNING STUDY

PROJECT OVERVIEW


BEGINNINGS
HOW IT WORKED AT BAXTER
PORTABILITY
LEADING EVENTS
BAXTER AMERICAN MERGER
INITIAL ORGANIZATIONAL ALIGNMENTS
CUSTOMER & PRODUCT LINE APPROACH
EXTERNAL CONSULTING STUDIES
CORPORATE "MINIMALIST" ROLE
INITIATE I/S STUDY
INTERNAL SELLING
DEFINE THE PROJECT SCOPE
BUILD THE ANALYTIC FRAMEWORK
SELL THE PROCESS WITHIN BAXTER
PLANNING PROCESS
UNDERSTAND THE BUSINESS STRATEGY/VISION
DOCUMENT THE CURRENT SYSTEMS INFRASTRUCTURE
IDENTIFY GAPS BETWEEN BUSINESS VISION & CURRENT I/S STRUCTURE
DEVELOP OPTIONS TO CLOSE GAPS
EVALUATE OPTIONS AND DEVELOP RECOMMENDATION
MAKING IT HAPPEN
BUILD MANAGEMENT COMMITMENT TO OPTIONS
MAKE RECOMMENDATION & GAIN APPROVAL
IMPLEMENT RECOMMENDATIONS
REVIEW IMPACTS & MAKE POST IMPLEMENTATION ADJUSTMENTS
WILL IT WORK FOR YOU??
BUSINESS STRATEGY BASED
BUILDS SENIOR MANAGEMENT COMMITMENT
POSITIONS TECHNOLOGY TO FACILITATE BUSINESS
RATIONALIZES TECHNOLOGY POSITIONING & RESOURCE LEVEL

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group". Indeed, a major "value add" of the study was making clear the critical role of systems in enabling Baxter's aggressive post merger business goals. Other outcomes:

- Alignment of the systems staff and funding levels with the strategic direction of the new company.

- Determination of future systems needs and their requisite funding levels.

- Better understanding of line manager's information requirements and their readiness to manage systems resources locally.

- Better organizational channels for generating new competitive systems ideas.

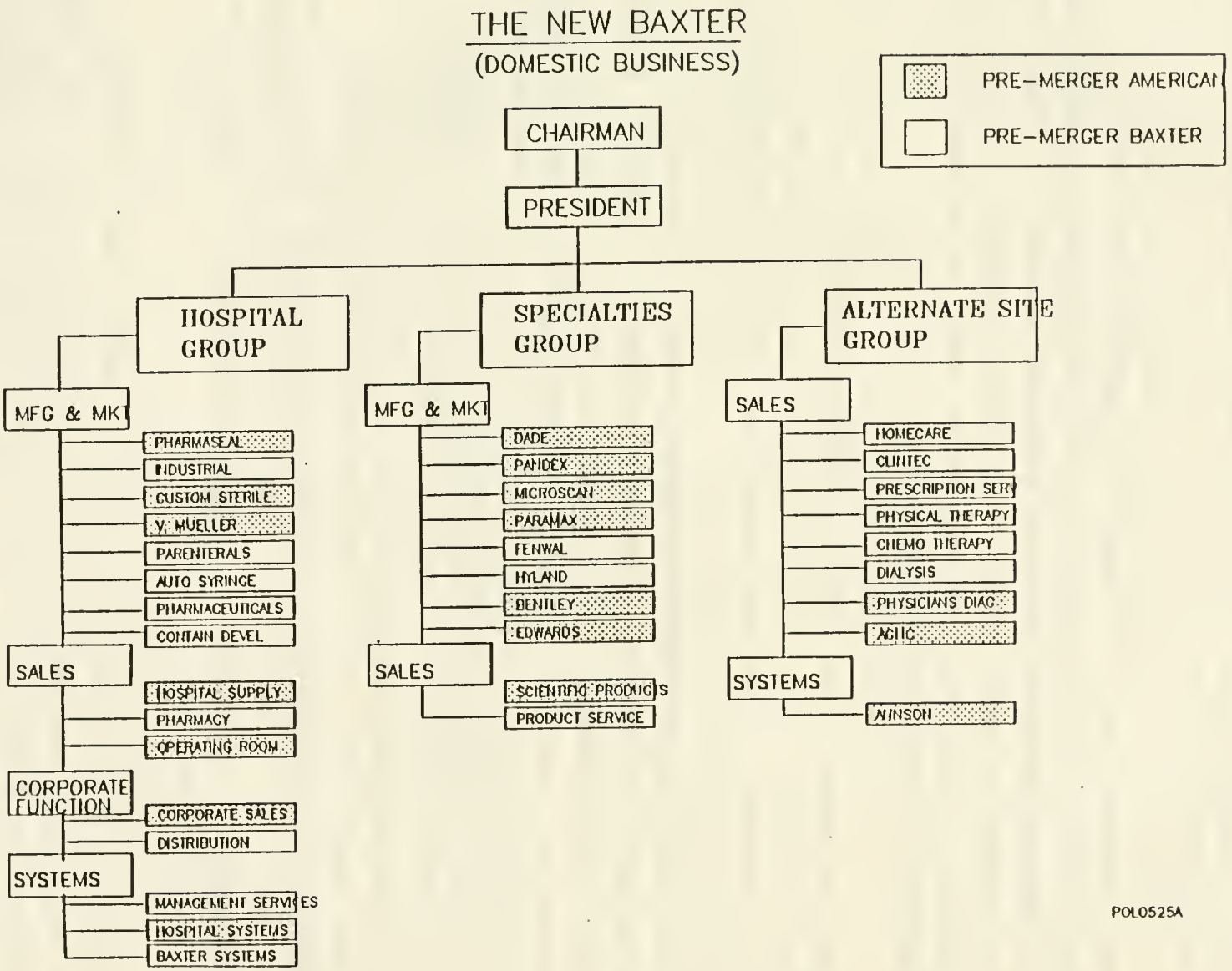
In addition, Baxter's Corporate Planning Group adopted the I/S study's methodology as part of their annual corporate planning process. This formalized an I/S planning component in Baxter's general business planning for the first time in the company's history. Finally, senior management initiated two follow-up studies using this methodology-one for corporate manufacturing and the other for finance.

Context: Baxter's Post-Merger Business Environment

Mergers are never easy. As one Baxter senior executive put it: "it was very difficult to bring together two such different business cultures...the traditionally more centralized management style at Baxter with the more decentralized management at American".

Indeed, the complexity of carrying out a major systems effort in the midst of post-merger, organizational restructuring is well illustrated by Figure 2. As shown, the merger resulted in 37 business divisions, 20 of which were from the old Baxter Travenol and the remaining 17 from American Hospital Supply. While nearly all

Figure 2


THE NEW BAXTER
(DOMESTIC BUSINESS)
PRE-MERGER AMERICAN
PRE-MERGER BAXTER
CHAIRMAN
PRESIDENT
HOSPITAL GROUP
SPECIALTIES GROUP
ALTERNATE SITE GROUP
MFG & MKT
PHARMASEAL
INDUSTRIAL
CUSTOM STERILE
V. MUELLER
PARENTERALS
AUTO SYRINGE
PHARMACEUTICALS
CONTAIN DEVEL
SALES
HOSPITAL SUPPLY
PHARMACY
OPERATING ROOM
CORPORATE FUNCTION
CORPORATE SALES
DISTRIBUTION
SYSTEMS
MANAGEMENT SERVICES
HOSPITAL SYSTEMS
BAXTER SYSTEMS
MFG & MKT
DADE
PANDEX
MICROSCAN
PARAMAX
FENWAL
HYLAND
BENTLEY
EDWARDS
SALES
SCIENTIFIC PRODUCTS
PRODUCT SERVICE
SALES
HOMECARE
CLINTEC
PRESCRIPTION SERV
PHYSICAL THERAPY
CHEMO THERAPY
DIALYSIS
PHYSICIANS DIAG
ACTIC
SYSTEMS
NINSON
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37 businesses existed before the merger, the new Baxter grouped them by customer and product-oriented lines with the intent of better satisfying customer needs through improved, cross functional business integration.

In studying Figure 2, it is tempting to conclude that the customer/product oriented integration of business processes strongly implied centralization of systems to achieve economies of scale and service (common systems, common data, common standards and architecture). In fact, this conclusion would obscure key factors driving Baxter's business environment.

Consider for example the differences between the Hospital and Alternate Site healthcare markets. In the Hospital market, three sales and marketing divisions manage their product portfolios by leveraging the production resources of ten Baxter manufacturing divisions and a large number of outside vendors. The major systems issue is how to facilitate integrated selling approaches to a single customer (the hospital). In contrast, there is no corporate manufacturing presence in the Alternate Site market. Rather, twelve sales and marketing divisions are buying vendor made products to sell to a diverse customer base (for example, Home, Doctor, Health Maintenance Organization, Corporate Employees, etc.). For the I/S study to be credible, it had to deal concretely with this level of business complexity. No line manager responsible for 12 sales divisions and many different customers and customer groups was going to sit still for a corporate-directed systems study that recommended a corporate I/S solution. If centralized I/S was the answer, the reasons had to be good!

Accordingly, the project team recognized early that a credible planning <u>process</u> was key to success. Executive "buy-in" and internal selling of the study's objectives and methodology were crucial. But it was also crucial that the study leave in place a new framework which effectively integrated business and strategic systems planning.

The Planning Process: Defining The Study's Key Objectives, Scope and Planning Methodology

From a practitioner's perspective, the I/S planning literature is of limited help in providing insights into how to design effective planning efforts. While considerable attention is paid to the contents of planning agendas and the specific topics included therein, relatively limited attention is paid to actual planning processes and how they can be best executed. Boynton and Zmud, for example, suggest that "projects aimed at understanding how to carry out an effective planning process... (and) efforts oriented toward developing methodologies... for managing and executing IT planning... are particularly advocated" <2>.

Defining Objectives and Scope

In light of "One Baxter" and the newly introduced customer and product line orientation, the study team's goals were to develop an integrated information systems plan for Baxter's domestic business units. Major objectives included:

- aligning I/S capability with the operating objectives and strategic growth of the new company, effecting, if necessary, a major restructuring of the I/S function;
- improving the efficiency and effectiveness of current and anticipated I/S capabilities;
- documenting strategic systems needs and new ideas identified during the planning process;
- providing a strategic I/S platform for Baxter's future growth;
- and planning for and providing a workable implementation plan.

Baxter's domestic business units account for over $5 billion in annual revenues and encompass 37 divisions. From an I/S perspective, the project team considered all functional areas and 300-plus systems

applications. Business unit and functional organization process flows were defined using the "logical application group" concept as a model <19,20>. This resulted in twenty-nine discrete process flows (for example, Order Entry, Customer Systems, Raw Materials Purchasing and Management, Product Engineering, and Decision Support Systems).

The project began in June, 1987, and concluded with recommendations and an implementation plan in January, 1988. The project team was composed of the senior I/S management group, the Director of Business Technology Planning, Corporate Information Resources (the study's project manager), and several Baxter-retained corporate strategy consultants. The Center for Information Systems Research, MIT Sloan School of Management, was asked to participate as an advisor to the study. CISR's role was to help develop the planning framework and to provide a research perspective which included observations from other companies.

Building the Planning Framework

Figure 3 illustrates the project team workplan. Note that the statement of objectives, key study elements, time frame and project deliverables were set in June, 1987. This workplan was used to introduce the study during executive interviews and at interim project update meetings.

Figure 4 illustrates the planning framework. Note there are three components: line of business or micro analysis; the cross divisional macro analysis; and the directional statements or process outcomes. In referencing the I/S planning literature, work by Zani <21>, King <7,8,9>, Rockart <16,17,18>, Rockart, Bullen and Leventer <20), McFarlan and McKenney <11,12>, and Porter and Millar <15> provided valuable insights in developing this approach.

The micro component is a division / function specific approach. The logic was to insure unique divisional requirements were maintained and reflected in the team's final recommendations. Key components of

Figure 3

BAXTER I/S STRATEGIC PLANNING STUDY

WORKPLAN

BACKGROUND: MANAGEMENT FEELS THERE IS A STRONG NEED TO REEVALUATE THE CURRENT I/R STRUCTURE IN VIEW OF NUMEROUS PRESSURES:

- OVERALL CORPORATE COMMITMENT TO RESTRUCTURING TO SUPPORT NEWLY DEVELOPED STRATEGIES
- DIVERSE REQUIREMENTS/CAPABILITIES AS A RESULT OF RECENT MERGERS
- NEW TECHNOLOGY DEVELOPMENT DECREASING THE CONTRIBUTION OF SCALE TO EFFECIENCY
- IMPORTANCE OF I/R TO BAXTER COMPETITIVE ADVANTAGE

ESTABLISH ANALYTIC FRAMEWORK	UNDERSTAND FUTURE STRATEGIC REQUIREM'T	DOCUMENT CURRENT I/R CAPABILITY	DEVELOP/EVALUATE OPTIONS	IMPLEMENTATION PLAN
KEY ACTIVITIES				
— CHARACTERIZE I/R ROLE — EVALUATE PERFOMANCE	— CORPORATE, GROUP, DMSION & LOCAL NEEDS — CUSTOMER NEEDS — IMPLICATIONS FOR FUTURE I/R ROLE	— FUNCTIONS BY DIVISION — I/R STRUCTURE OPERATIONS DEVELOPMENT MANAGEMENT — COST, TECHNOLOGY, & HEADCOUNT	— CENTRAL vs. DISTRIBUTED — COMPARABLE STRUCTURES — COMPETITIVE IMPLICATIONS	— I/R STRUCTURE — RESOURCE LEVELS — SYSTEMS/HARDWARE CONFIG — MANAGEMENT CONTROL
TIMING				
7/87 – 8/87	8/87 – 10/87	7/87 – 9/87	10/87 – 12/87	1/88

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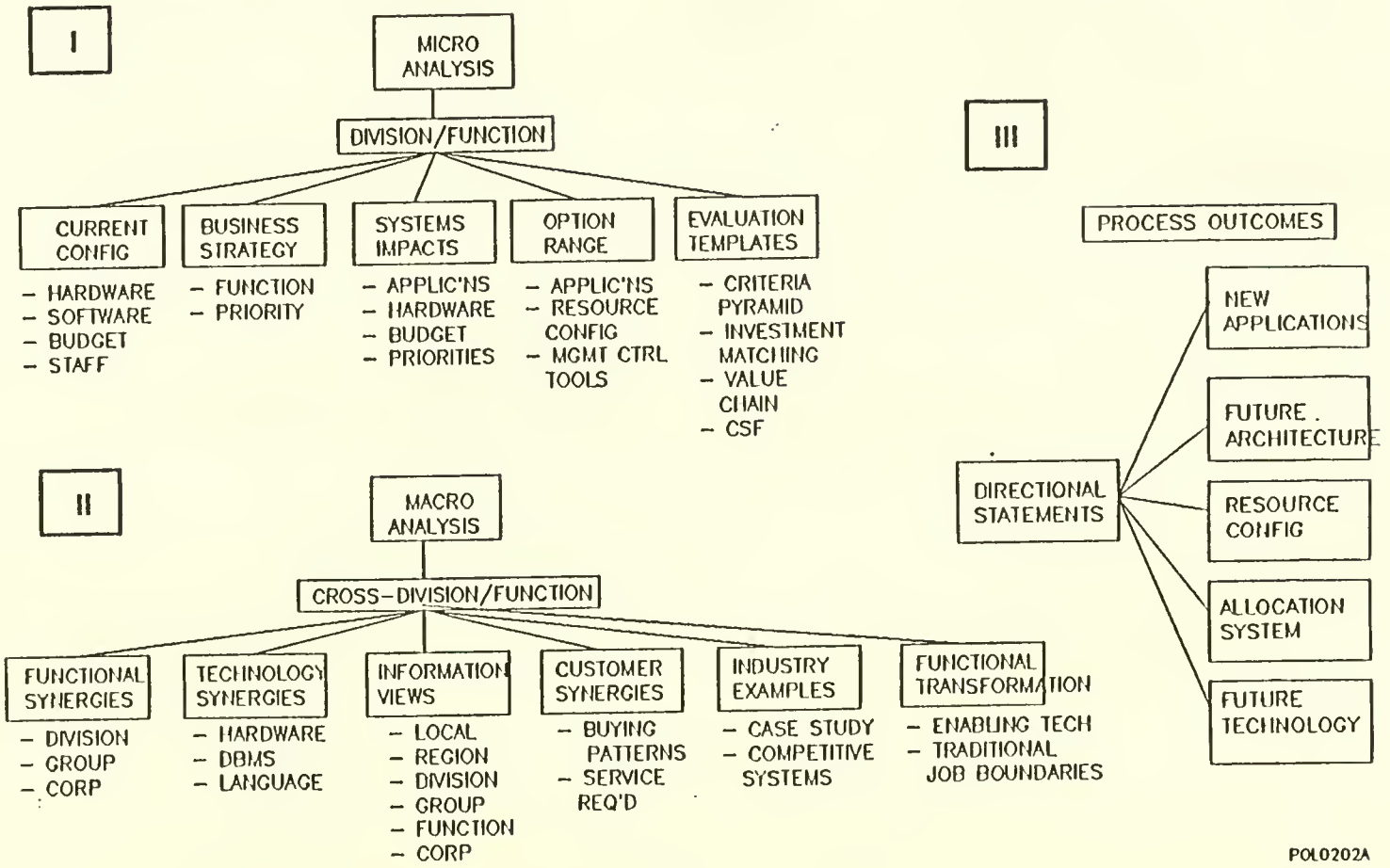
Figure 4

THE BAXTER I/S PLANNING FRAMEWORK



the micro loop are: (1) understanding the business vision; (2) documenting the current I/S environment; (3) identifying gaps between business vision and support infrastructure; (4) developing options to close gaps; and (5) evaluating options.

The macro loop is a cross divisional approach. In this case, the objective was to determine the appropriate level of I/S resource sharing without compromising unique divisional requirements. The key components of the macro analysis are (1) functional synergies across business units; (2) requirements for horizontal and vertical information views; (3) similarities in customers' product and service requirements; and (4) synergies in technology infrastructure and new technology development.

The final component of the framework defines Baxter's computing platform for the 1990s. The project team developed directional statements in five areas: (1) new applications; (2) future architecture; (3) resource configuration; (4) allocation system; and (5) future technologies.

Several I/S planning and business strategy tools were built into the framework. Critical Success Factor (CSF) interviewing techniques were incorporated to help identify and prioritize key business needs and I/S resource allocation alternatives <16>. Porter's Value Chain concepts were included to help identify "information intensive" locations along the company's value-added chain, and to help in defining the firm's integration efforts on a theoretical strategy basis <15>. McFarlan and McKenney's work was helpful in integrating the I/S planning framework into general business planning <12>.

Executing the Plan: Completing the Study and Presenting Recommendations To Senior Management

Why was this planning effort successful? A typical answer is that successful efforts always have strong executive sponsorship, an effective project manager, and an able, industrious project team.

All were true in this case. However, an added, critical factor was in the design of the planning process itself, as we detail below.

Selling the Planning Process to Management

Building executive level commitment was vital to the project's success. However, as a result of the consulting firm's study the criticality of executive "ownership" was significantly increased. The project team's challenge was to build sufficient confidence in the planning process to make the integrity of results implicit.

To accomplish this, the project team planned and facilitated key executive working sessions. Each session solicited executive input to the process and created ownership in the framework at that level. The success of this internal review and selling phase was best characterized by one senior executive: "You have put all the required thought and research into the planning framework... it is the best I've seen... now let's go out and get it done".

Executive Interviews

However rich the planning methodology, the planning process itself has limited power without a well defined and clearly understood business vision to drive it. The executive interviews and strategy discussions provided that vision.

Line of business executive interviews provided a "first-hand" understanding of the contrasts between "pre" and "post" merger Baxter business strategies. Indeed, post-merger strategies were fundamentally different from pre-merger directions. If the team had simply based their recommendations on an extension of pre-merger directions, the organizational revisions would have actually impeded Baxter from attaining its post merger business goals. Figure 5 illustrates these changes.

In designing the interview process, the team focused on four

Figure 5

UNDERSTANDING THE BUSINESS·VISION

POST–MERGER CHANGES IN STRATEGIES

"A NEW VISION"

THE PRE–MERGER BAXTER	THE POST–MERGER BAXTER
■ PRODUCT NICHE STRATEGY WITH A PRODUCT/PRICE SELLING EMPHASIS	■ FULL LINE DISTRIBUTOR OF PRODUCTS AND SERVICES; A VALUE ADDED MANUFACTURER AND SUPPLIER
■ STRONG MANUFACTURING FOCUS	■ PRODUCT LINE BASED, WITH STRENGTHS FROM R&D TO POINT OF SALE
■ MARGIN GROWTH THROUGH COST CONTROL	■ STRONG CUSTOMER EMPHASIS
■ TECHNOLOGY AND R&D EMPHASIS	■ TECHNOLOGY AND R&D EMPHASIS
■ STRONGLY CENTRALIZED	■ MOVING TOWARDS DECENTRALIZATION
■ MARKET LEADER IN ALTERNATE SITE HEALTH CARE	■ MARKET LEADER IN ALTERNATE SITE HEALTH CARE
	■ STRONG SALES AND MARKETING FOCUS
	■ BUILDING GLOBAL BUSINESSES

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components: (1) selecting executives; (2) designing the interview; (3) preparing interview materials; and (4) analyzing results.

- Selecting executives - The team used two criteria to select executives: (1) scope of their responsibility relative to the project scope; and (2) the criticality of the corresponding business unit to the study outcome. In addition, other executives were interviewed because of their strong interest in the process. Thirty-five executives were selected and scheduled for interview. Positions in the organization ranged from division president to chief executive officer.

- Designing the interview - Four objectives were key to interview design: (1) communicating the scope and goals of the project; (2) achieving consensus on business strategies; (3) understanding and discussing the systems requirements and implications of these strategies; and (4) building executive commitment to the study. The interviews averaged ninety minutes. The first half conveyed the purpose of the study and reviewed the business unit strategies. The second half focused on the I/S role in enabling these I/S strategies. After the interviews were completed, the team sent follow-up letters to the executives summarizing the agreed upon strategies and the I/S implications of those strategies.

- Interview preparation package - Interview preparation included reviewing business unit strategic plans and developing strategy summary documents for use in the interviews. These documents sorted strategies by functional area (see Figure 6). In addition, strategies with apparent systems implications were identified and listed on another document to aid the "role of I/S" discussion (see Figure 7).

- Results - From these interviews, the project team assembled a comprehensive database of business unit strategies and corresponding systems implications. Over two hundred strategy statement and system implication pairs were indexed by business unit and function. This indexing allowed the team to analyze strategies from both a business unit and functional perspective.

Beyond establishing a strategy database, however, the executive interviews were a unique opportunity for Baxter's I/S managers to demonstrate an indepth understanding of strategy and a creative use of technology in enabling business goals. One business unit president characterized this best by saying:

Figure 6

INTERVIEW PREPARATION PACKAGE

EXAMPLE: HOSPITAL GROUP

STRATEGIES BY FUNCTION

MISSION STATEMENT
TO SHIFT THE BASIS OF COMPETITION FROM PRODUCT FEATURE AND PRICE, TO COMPETING FOR HOSPITAL BUSINESS BASED ON THE TOTAL VALUE DELIVERED TO THE CUSTOMER

SALES & MARKETING

- DEVELOP PARTNERSHIP SELLING PROGRAM
- DEVELOP AN OVERALL COORDINATE CORPORATE SELL APPROACH THAT FULLY LEVERAGE ALL DEPARTMENT SELL EFFORT
- CREATE A PRICING SYSTEM WHICH LEVERAGES OUR BREADTH AND GUARANTEES 'FAIR' PRICES

DISTRIBUTION & SERVICES

- RESTRUCTURE TO ELIMINATE DUPLICATION COSTS AND TO FACILITATE "ONE BAXTER"
- PLAN WHICH IS CONSISTENT WITH THE VISION (HOSPITAL & ALT. SITE)

PRODUCT LINE

CONFIDENTIAL

OPERATIONS

- RESTRUCTURE OVERHEAD TO BECOME LOW COST:
  - WAGE RATE MGMT
  - HEAD COUNT MGMT
- MANAGE MANUFACTURING COSTS DOWN THE EXPERIENCE CURVE:
  - AUTOMATION
  - PLANT CONSOLIDATIONS

BUSINESS UNIT OVERVIEW

KEY PRODUCTS AND MARKETS

DIVISIONS	PRODUCTS	TARGET MARKET	SALESFORCE	MANUFACTURING/ DISTRIBUTION	FINANCIALS
• HOSPITAL SUPPLY	• MED/SURG • DIETARY • LINEN	• HOSPITALS	• HS	• D – CORPORATE • OE – CORPORATE	• 1986 SALES = $ • 1986 NET INCOME = $MM
• OPERATING ROOM	• MED/SURG	• HOSPITALS	• OR	• D – CORPORATE • OE – CORPORATE	
• V. MUELLER	• INSTRUMENTS • WOUND DRAINAGE • NEURO SHUNTS	• HOSPITALS	• OR	• M – INSTRUMENTS	• 1986 SALES = $ • 1986 PROFIT = $$ • RONA = • 5 YEAR PROJECTED GROWTH = • MARKET SHARE =

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Figure 7

INTERVIEW PREPARATION PACKAGE

"ROLE OF TECHNOLOGY"
EXAMPLE

DISCUSSION LEADS

STRATEGIC IMPERATIVE	SYSTEMS IMPLICATION
— BROADER PRODUCT OFFERING — VALUE ADDED RELATIONSHIP — PARTNERSHIP SELLING VISION — GLOBAL MARKETING	— TELEMARKETING SYSTEMS — CUSTOMER SERVICE SUPPORT SYSTEMS — AUTOMATED CUSTOMER ORDER ENTRY — CUSTOMER BASED DEPARTMENTAL SYSTEMS — WORLD WIDE REPORTING REQUIREMENTS
— ACHIEVE MKT LEADERSHIP POSITION IN KEY SEGMENTS — ESTABLISH INSTRUMENT BASE — VALUE ADDED RELATIONSHIP	— PIPELINE VISIBILITY REQUIREMENTS — PRODUCT ALLOCATION SYSTEM — PRODUCT SERVICE DISPATCH/SUPPORT — HARDWARE TRACKING REQUIREMENTS — SERVICE LEVEL/STOCKING REQUIREMENTS
— MANAGE PRODUCT PORTFOLIO	— COMPETITIVE DATABASE — PRODUCT PORTFOLIO MGMT SYSTEM
— WAREHOUSING BDP — EXPENSE CONTROL	— WAREHOUSE AUTOMATION SYSTEM

OUTCOMES

DISCUSSION NOTES

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"It's great to have someone talking with me about systems in plain English... it makes it a lot easier for me to understand your role."

Documenting the Current I/S Infrastructure

Maximizing the I/S function's contribution in accomplishing Baxter's business goals required an understanding of the existing I/S infrastructure. The project team assembled key information on Baxter's three hundred (plus) applications, including description of functionality, age, technology base, cost, and headcount.

These applications and corresponding data were indexed by the twenty-nine function and LAG process flows as illustrated in Figure 8. By building this I/S infrastructure "fact base," the project team was able to map current I/S capabilities to the requirements and strategies of the emerging, post merger corporation.

Identifying Gaps

With the business strategy database and I/S fact base complete and indexed by function/LAG, the project team assessed the current I/S organization's capability to support Baxter's newly defined goals. The result of the strategy analysis was a listing of capabilities, by division and function, not met by the current systems infrastructure. Examples included product line P/L statements, customer P/L statements across divisions, common Baxter invoice across divisions and so forth. This list of capability short-falls was used as one of the primary inputs to generating recommendation options.

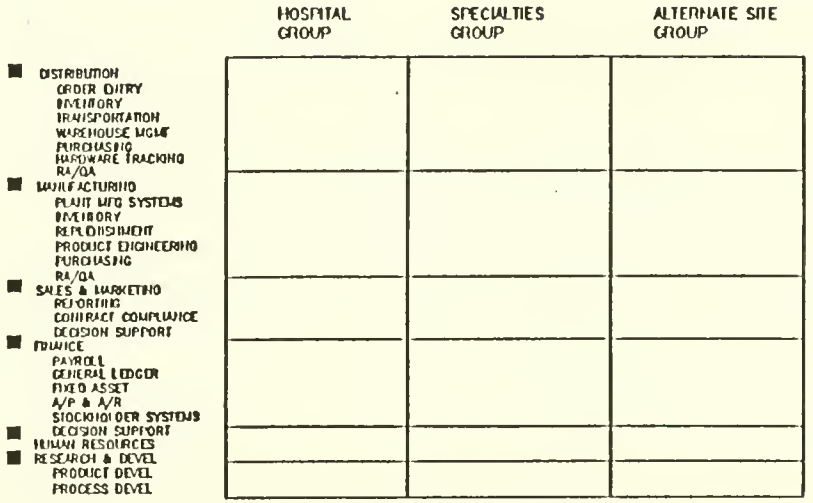
Developing Options

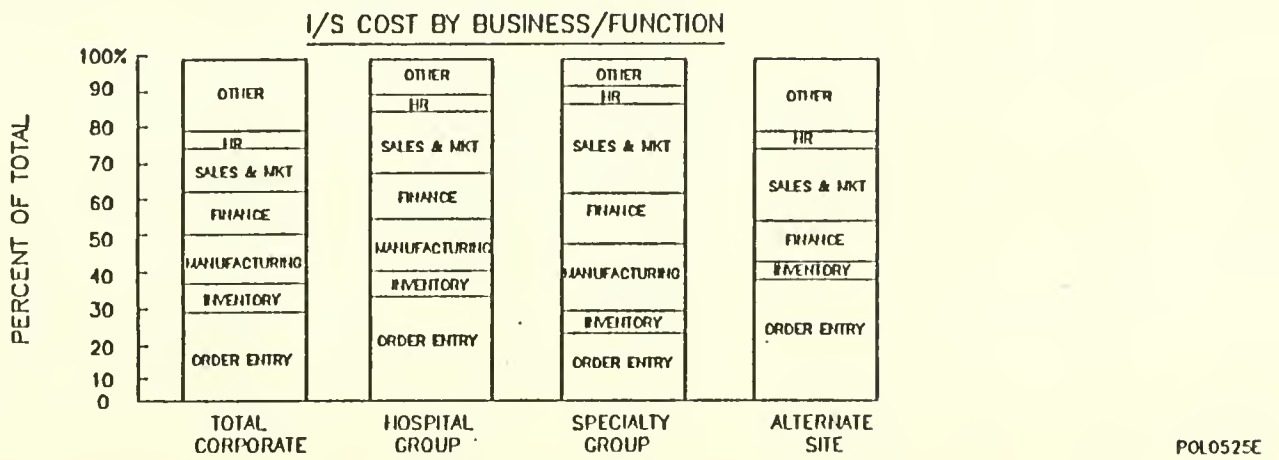
Option generation considered I/S organizational solutions ranging from complete decentralization to complete

Figure 8

I/S APPLICATIONS: DATA AGGREGATION BY FUNCTION

EXAMPLE





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centralization. As shown in Figure 9, options were developed for all business divisions and applicable functional areas (not all divisions have manufacturing and R & D responsibilities). I/S support capability was partitioned into three separate areas: (1) applications development - the process of designing and implementing new computer based information systems; (2) operations - the process of "running" systems; and (3) planning and control - the process of defining the I/S environment, e.g., setting technology strategy, planning, standards, and so forth. For example, an option could include Division A's manufacturing systems being developed centrally, operated locally, and subject to centralized planning and control.

The project team generated three I/S support options for each business unit/function combination. This option range was broad enough to ensure viable organizational configurations were not excluded. Option generation was completed in group meetings where division/function pairings were individually discussed.

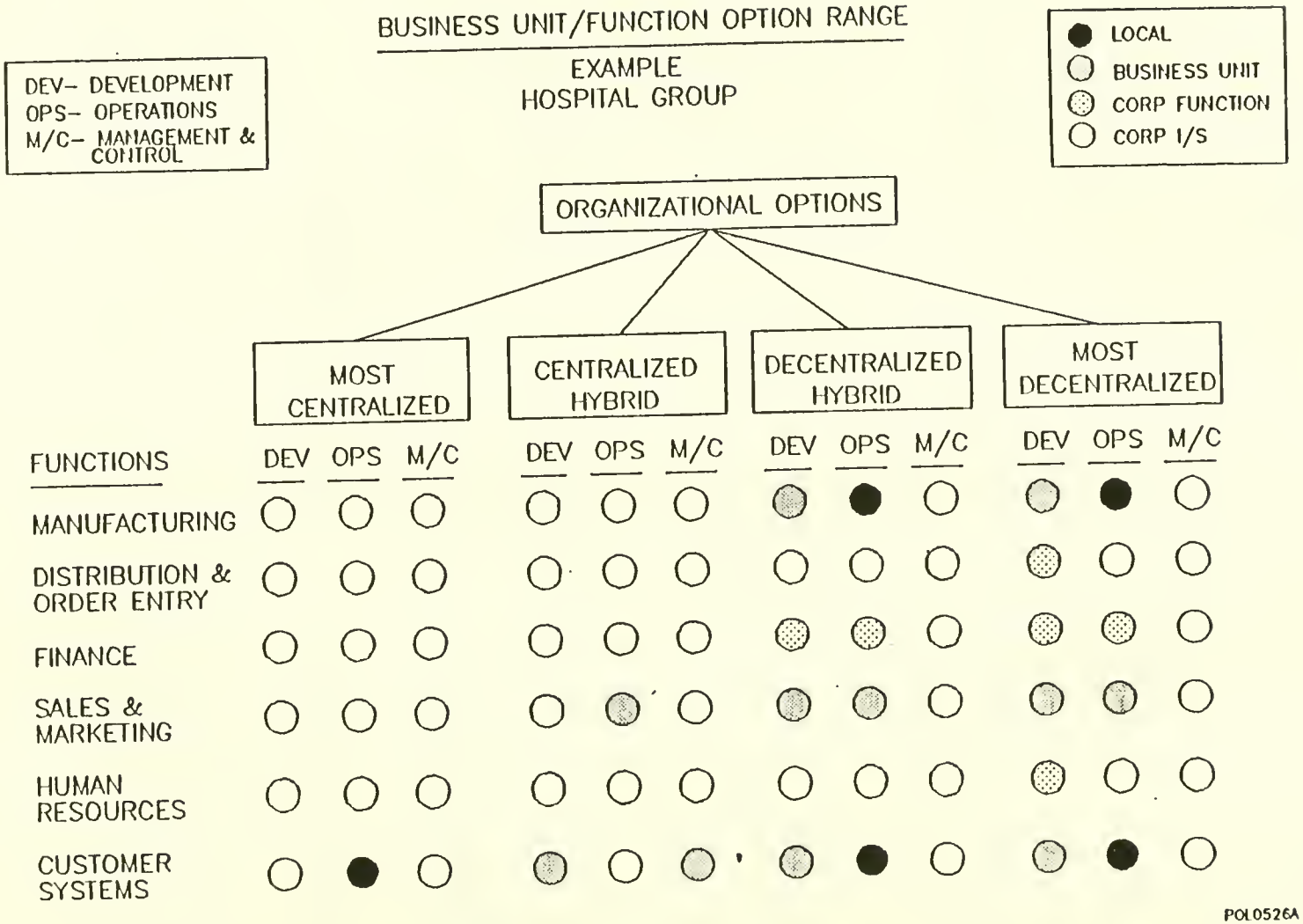
In this phase of the planning process, the team developed a complete list of I/S support options for all 400 Baxter business unit/function combinations (divisions x functions). With this data in hand, the team was ready to begin the option evaluation phase of the process.

Evaluating the Options

The option evaluation phase analyzed and selected the I/S support options for business unit/function combinations using micro and macro evaluation "templates." Critical to this analysis phase were evaluation criteria which facilitated data reduction but maintained critical information.

Several different evaluation templates were used over the course of the study. Those most significant were: in the micro

Figure 9


BUSINESS UNIT/FUNCTION OPTION RANGE
EXAMPLE
HOSPITAL GROUP
DEV- DEVELOPMENT
OPS- OPERATIONS
M/C- MANAGEMENT & CONTROL
LOCAL
BUSINESS UNIT
CORP FUNCTION
CORP I/S
ORGANIZATIONAL OPTIONS
MOST CENTRALIZED
CENTRALIZED HYBRID
DECENTRALIZED HYBRID
MOST DECENTRALIZED
FUNCTIONS
DEV OPS M/C
MANUFACTURING
DISTRIBUTION & ORDER ENTRY
FINANCE
SALES & MARKETING
HUMAN RESOURCES
CUSTOMER SYSTEMS
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analysis, the template evaluating the organizational effectiveness of proposed configuration options; and in the macro analysis, the template evaluating technology, functional and customer synergies across the company. We present examples of each template below.

For each of the 400 business unit/function combinations, the micro analysis selected one of three configuration options: centralized, hybrid (some IS management functions centralized and some decentralized), and decentralized. Figure 10 illustrates the micro, organizational effectiveness template. We have selected Hospital Group/Order Entry as a generic, business unit/function example. Note this template's key criteria included three categories: organizational critical mass, effectiveness, and resource control. Under organizational critical mass, for example, the team selected the best configuration maximizing IS management talent, experience sharing, and career pathing. For this business unit/function, the project team recommended centralized IS support as indicated by the filled dots in Figure 10. The result of the micro evalution process was a single IS support recommendation option for each business unit/function combination.

The next step - the macro loop - analyzed the 400 IS support recommendations for synergies across business units and functions. The challenge was to maximize cross-divisional and functional IS synergies while preserving required business specific flexibility.

To accomplish this, the macro analysis applied three principal criteria: technological intensity (a measure of critical mass required for systems development, operations or maintenance), functional similarity (similarity of functional process across divisions), and common customer (IS support targeted to the same customer account or customer group). For each business unit / function, the team evaluated whether IS support should be shared across divisions or whether it should stand alone.

Figure 10

BUSINESS UNIT/FUNCTION OPTION EVALUATION TEMPLATE

HOSPITAL GROUP – ORDER ENTRY

● BEST
◍ AVERAGE
○ WORST

EVALUATIVE CRITERIA

HOSPITAL GROUP – O/E	I/S SUPPORT OPTION RANGE		
KEY CRITERIA	CENTRALIZED	HYBRID	DECENTRALIZED
ORGANIZATIONAL CRITICAL MASS			
– MGMT TALENT	●	◍	○
– EXPERIENCE SHARING	●	◍	○
– CAREER PATH	●	◍	○
EFFECTIVENESS			
– END USER FAMILIARITY	○	◍	●
– RESPONSIBILITY/ACCOUNTABILITY	○	◍	●
– FLEXIBILITY	○	◍	●
– DISCRETE PROJECT LIFE CYCLE	●	◍	●
RESOURCE CONTROL			
– COST CONTAINMENT	●	◍	○
– CAPACITY LEVELING	●	◍	○
– PRIORITIZATION/ALLOCATION	○	◍	●

POL0526D

Figure 11 illustrates the results of the macro analysis. Note that the recommended support options are a mix of centralized (shared) and decentralized (individual) I/S organizational configurations.

Building Commitment to Selected Options

With option evaluation complete, the team focused on building senior executive commitment to the preliminary recommendations by: (1) reviewing recommendations with the senior I/S management team; (2) conducting follow-up discussions with selected business executives; and (3) reviewing recommendations with the executive committee.

- Senior IS Review - The team conducted a two day off-site meeting with Baxter's CIO and direct reports. In this meeting, the team received input on both preliminary recommendations and supporting documentation.

- Executive Follow-ups - Following the I/S review, both the project team and I/S executives initiated individual review meetings with key business executives. These meetings were frank discussions of likely impacts on each executive's business function. Discussions solicited input, sold recommendations and built commitment to implementation.

- Executive Review - In a presentation to the executive committee, Baxter's CIO gained strong support for the study's final recommendations. Careful pre-planning and attention to the overall integrity of the study ensured this outcome.

CEO Approval

Following the executive committee review, Baxter's CIO presented final recommendations to the CEO and President, who approved them for immediate implementation. Figure 12 illustrates the recommendation format used in this meeting.

Figure 11

OPTION EVALUATION

MACRO ANALYSIS

THE CHALLENGE

LEVERAGING CROSS-DIVISIONAL & FUNCTIONAL I/S SYNERGIES
WHILE PRESERVING REQUIRED BUSINESS SPECIFIC FLEXIBILITY

I/S FUNCTIONAL SUPPORT OPTIONS BY BUSINESS GROUP

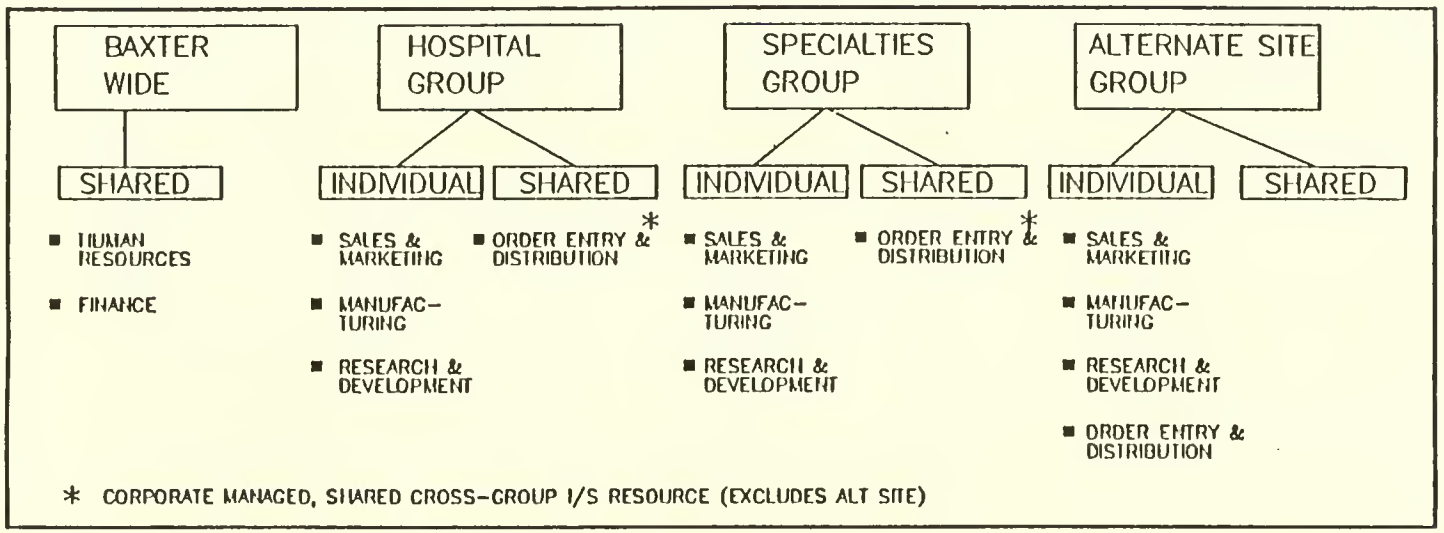

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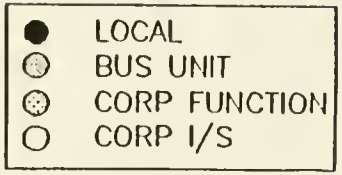
Figure 12

BAXTER'S I/S RECOMMENDATIONS

FORMAT



EXAMPLE RECOMMENDATION TEMPLATE

BUSINESS UNIT/FUNCTION

BUSINESS UNIT	MFG			INVENTORY			FINANCE			SALES			HUM RES		
	DEV	OPS	STDS	DEV	OPS	STDS	DEV	OPS	STDS	DEV	OPS	STDS	DEV	OPS	STDS
HOSPITAL HEALTH CARE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
HOME HEALTH CARE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
DIAGNOSTICS LABORATORY	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
INDUSTRIAL LABORATORY	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

POL0525F

Summary and Results

The planning study provided the framework for Baxter's business and I/S management to realign the company's systems organization to meet the needs of the new corporation. Some Key outcomes included:

- The I/S planning methodology was incorporated into Baxter's general business planning process for the first time in company history.
- In the midst of a strong recommendation to decentralize corporate I/S, the study reset direction and confirmed continuation of centralized IS support for the hospital and specialty groups' order entry and inventory functions.
- In recognizing where line of business needs required local control, the study confirmed continuation of decentralized systems support in the alternate site healthcare businesses.
- In the corporate marketing area, funding approval was given for a centralized sales and marketing data resource.
- Programming and development resources were transferred from corporate I/S to Baxter's World Trade Division to better support international business operations.
- Similarly, a number of programming and development resources were transferred from corporate I/S to line of business functions to better support local applications needs.

Post implementation audits have verified the success of the new I/S resource configuration.

Will It Work In Your Organization?

We believe this planning approach has widespread applicability for other organizations. The framework addresses the general need of all companies to link I/S strategic planning with general business planning. Below are several, generic benefits inherent in this approach:

- The framework takes a business process view.
- The framework plans the planning process, identifying critical objectives and building commitment to both the methodology and the resultant outcomes.

- It taps multiple sources of expertise to define critical problem areas and to identify key stakeholders.
- The evaluation process is made practical and concrete. The templates help interpret information and establish priorities.
- The framework produces intermediate deliverables, each providing an opportunity to reinforce stakeholder ownership.

Planning for the I/S Environment of the 1990S

Planning for the I/S environment of the 1990s is a moving target. From a practitioner's perspective, changes come from many angles: organization, technology, business strategy, resources. Successful planning is an exercise in planning for and managing change.

Today Baxter's I/S resources are strategically positioned. More importantly, however, Baxter now has in place the I/S planning process to make them strategically flexible.

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